## AMENDMENTS

**In the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A computer-implemented method of automatic carrier transfer, comprising using a computer to perform the steps of :

executing a data verification procedure after a first process operation of a plurality of wafers according to a manufacturing execution system database and obtaining a verification result, wherein the data verification procedure verifies the data between the wafers and the MES database;

dynamically producing a carrier transfer sub-route of the wafers according to the verification result;

executing the carrier transfer sub-route of the wafers; and

executing a second process operation for the wafers.

2. (Cancelled)

3. (Cancelled)

4. (Original) The computer-implemented method as claimed in claim 1, wherein executing the carrier transfer sub-route further comprises updating the MES database.

5. (Original) The computer-implemented method as claimed in claim 1, wherein the carrier transfer sub-route is enabled by transferring the wafers from a first carrier to a second carrier.

6. (Original) The computer-implemented method as claimed in claim 1, wherein the carrier transfer sub-route is enabled by splitting the wafers in the first carrier and transferring the split lots to at least two carriers.

7. (Original) The computer-implemented method as claimed in claim 1, wherein the first process operation and the second process operation are stored in a first database.

8. (Currently Amended) The computer-implemented method as claimed in claim [[1]] 7, wherein the carrier transfer sub-route is stored in a second database.

9. (Currently Amended) A storage medium for storing a computer program providing a method of automatic carrier transfer, comprising using a computer to perform the steps of :

executing a data verification procedure after a first process operation of a plurality of wafers according to a manufacturing execution system database and obtaining a verification result, wherein the data verification procedure verifies the data between the wafers and the MES database;

dynamically producing a carrier transfer sub-route according to the verification result;

executing the carrier transfer sub-route of the wafers; and

executing a second process operation for the wafers.

10. (Cancelled)

11. (Cancelled)

12. (Original) The storage medium as claimed in claim 9, wherein the step of executing the carrier transfer sub-route further comprises updating the MES database.

13. (Original) The storage medium as claimed in claim 9, wherein the carrier transfer sub-route is enabled by transferring the wafers from a first carrier to a second carrier.

14. (Original) The storage medium as claimed in claim 9, wherein the carrier transfer sub-route is enabled by splitting the wafers in the first carrier and transferring the split lots to at least two carriers.

15. (Original) The storage medium as claimed in claim 9, wherein the first process operation and the second process operation are stored in a first database.

16. (Currently Amended) The storage medium as claimed in claim [[9]] 15, wherein the carrier transfer sub-route is stored in a second database.

17. (Currently Amended) A system of automatic carrier transfer, comprising :

a first execution module, executing a data verification procedure after a first process operation of a plurality of wafers according to a manufacturing execution system database and obtaining a verification result, wherein the data verification procedure verifies the data between the wafers and the MES database;

a sub-route production module, coupled to the first execution module, dynamically producing a carrier transfer sub-route according to the verification result;

a sub-route execution module, coupled to the sub-route production module, executing the carrier transfer sub-route of the wafers; and

a second execution module, coupled to the sub-route execution module, executing a second process operation for the wafers.

18. (Cancelled)

19. (Cancelled)

20. (Currently Amended) The system as claimed in claim 17, wherein the sub-route execution module further updates the MES database ~~of MES~~.

21. (Original) The system as claimed in claim 17, wherein the carrier transfer sub-route is enabled by transferring the wafers from a first carrier to a second carrier.

22. (Original) The system as claimed in claim 17, wherein the carrier transfer sub-route is enabled by splitting the wafers in the first carrier and transferring the split lots to at least two carriers.

23. (Original) The system as claimed in claim 17, wherein the first process operation and the second process operation are stored in a first database.

24. (Currently Amended) The system as claimed in claim [[17]] 23, wherein the carrier transfer sub-route is stored in a second database.

25. - 32. (Cancelled)

33. (New) A computer-implemented method of automatic carrier transfer, comprising using a computer to perform the steps of:

executing a data verification procedure after a first process operation of wafers according to a manufacturing execution system database to obtain a verification result, the data verification procedure verifying data between the wafers and the MES database;

dynamically selecting a carrier transfer sub-route of the wafers according to the verification result;

executing the carrier transfer sub-route of the wafers; and

executing a second process operation for the wafers;

wherein the first process operation and the second process operation are stored in a first database and are selected for processing of the wafers prior to executing the first process operation; and

wherein the carrier transfer sub-route is stored in a second database.